



03C0

PATENT

Docket No.: 19603/2921 (CRF-D-2484A)

#3

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

091 877,606

Applicant(s) :	Min Lu and Hong Ji)	Examiner:
Serial No. :	To Be Assigned)	Unknown
Cnfrm. No. :	To Be Assigned)	Art Unit:
Filed :	Herewith)	Unknown
For :	AN ANTIGEN FOR DEVELOPING)	
	NEUTRALIZING)	
	ANTIBODIES TO HUMAN)	
	IMMUNODEFICIENCY VIRUS)	

INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §§ 1.97-1.98

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Pursuant to 37 CFR §§ 1.97-1.98, applicant(s) hereby bring(s) to the attention of the United States Patent and Trademark Office, the enclosed references listed on the attached PTO-1449 form.

1. Lu, M., et al. (1995) "A trimeric structural domain of the HIV-1 transmembrane glycoprotein," *Nature Structural Biology*, Vol. 12:1075-1082.
2. Blacklow, S.C., et al. (1995) "A Trimeric Subdomain of the Simian Immunodeficiency Virus Envelope Glycoprotein," *Biochemistry*, Vol. 34(46):14955-14962.
3. Lu, M., et al. (1997) "A Trimeric Structural Subdomain of the HIV-1

Transmembrane Glycoprotein," *Journal of Biomolecular Structure & Dynamics*, Vol. 15(3):465-471.

4. Chen, C.H., et al. (1995) "A Molecular Clasp in the Human Immunodeficiency Virus (HIV) Type 1 TM Protein Determines the Anti-HIV Activity of gp41 Derivatives: Implication for Viral Fusion," *Journal of Virology*, 3771-3777.
5. Tan, K., et al. (1997) "Atomic Structure of a thermostable subdomain of HIV-1 gp41," *Proc. Natl. Acad. Sci. USA*, Vol. 94:12303-12308.
6. Salzwedel, K., et al. (1999) "A Conserved Tryptophan-Rich Motif in the Membrane-Proximal Region of the Human Immunodeficiency Virus Type 1 gp41 Ectodomain Is Important for Env-Mediated Fusion and Virus Infectivity," *Journal of Virology*, Vol. 73(3):2469-2480.
7. Jiang, et al. (1993) "HIV-1 inhibition by a peptide" and "Nested fullerene-like structures," *Scientific Correspondence*, Vol. 365:113.
8. Malashkevich, V.N., et al. (1998) "Crystal structure of the simian immunodeficiency virus (SIV) gp41 core: Conserved helical interactions underlie the broad inhibitory activity of gp41 peptides," *Proc. Natl. Acad. Sci. USA*, Vol. 95:9134-9139.
9. Wild, C.T., et al. (1994) "Peptides corresponding to a predictive -helical domain of human immunodeficiency virus type 1 gp41 are potent inhibitors of virus infection," *Proc. Natl. Acad. Sci. USA*, Vol. 91:9770-9774.
10. Gallaher, W.R., et al. (1989) "A General Model for the Transmembrane Proteins of HIV and Other Retroviruses," *AIDS Research and Human Retroviruses*, Vol. 5(4):431-440.
11. Chambers, P., et al. (1990) "Heptad repeat sequences are located adjacent to hydrophobic regions in several types of virus fusion glycoproteins," *Journal of General Virology*, 71:3075-3080.

12. Wild, C., et al. (1995) "The Inhibitory Activity of an HIV Type 1 Peptide Correlates with Its Ability to Interact with a Leucine Zipper Structure," *AIDS Research and Human Retroviruses*, Volume 11(3):323-325.
13. Delwart, E.L., et al. (1990) "Retroviral Envelope Glycoproteins Contain a 'Leucine Zipper'-like Repeat," *AIDS Research and Human Retroviruses*, Vol. 6(6):703-706.
14. Neurath, A.R., et al. (1995) "Two Partially Overlapping Antiviral Peptides from the External Portion of HIV Type 1 Glycoprotein 41, Adjoining the Transmembrane Region, Affect the Glycoprotein 41 Fusion Domain," *AIDS Research and Human Retroviruses*, Vol. 11(2):189-190.
15. Chan, D.C., et al. (1997) "Core Structure of gp41 from the HIV Envelope Glycoprotein," *Cell*, Vol. 89:263-273.
16. Caffrey, et al. (1998) "Three-dimensional solution structure of the 44 kDa ectodomain of SIV gp41," *The EMBO Journal*, Vol. 17(16):4572-4584.
17. Yang, X., et al. (2000) "Modifications That Stabilize Human Immunodeficiency Virus Envelope Glycoprotein Trimers in Solution," *Journal of Virology*, Vol. 74(10):4746-4754.
18. Yang, Z.N., et al. (1999) "The Crystal Structure of the SIV gp41 Ectodomain at 1.47 Å Resolution," *Journal of Structural Biology*, 126:131-144.
19. Weissenhorn, W., et al. (1997) "Atomic structure of the ectodomain from HIV-1 gp41," *Nature*, Vol. 387(22):426-430.

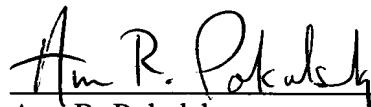
Copies of each of the references are also provided herewith. All of the references are in the English language.

Consideration of this Information Disclosure Statement is respectfully requested, since the art provided may be material to the examination of the present invention as defined in 37 C.F.R. § 1.56(a).

Inasmuch as this Information Disclosure Statement is being submitted prior to the issuance of an Official Action on the merits, no fee, certification or petition is required by Applicants.

Respectfully submitted,

Date: November 14, 2001

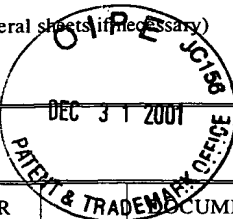

Ann R. Pokalsky
Registration No. 34,697

NIXON PEABODY LLP
Clinton Square, P.O. Box 31051
Rochester, New York 14603
Telephone: (716) 263-1304
Facsimile: (716) 263-1600

ARP/mm

Certificate of Mailing - 37 CFR 1.8(a)	
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231, on the date below.	
Date <u>11/15/01</u>	<u>Maria Matos</u> Maria Matos

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use several sheets if necessary) (PTO-1449)	ATTY. DOCKET NO. 19603/2921 (CRF-D-2484a)	SERIAL NO. To Be Assigned
	APPLICANT Min Lu and Hong Ji	
	FILING DATE June 8, 2001	GROUP ART UNIT Unknown



U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPRO- PRIATE
	AA					
	AB					
	AC					
	AD					
	AE					
	AF					
	AG					

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANS- LATION IF APPRO- PRIATE
	AH					
	AI					
	AJ					

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

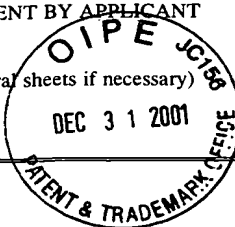
AK	Lu, M., et al. (1995) "A trimeric structural domain of the HIV-1 transmembrane glycoprotein," <i>Nature Structural Biology</i> , Vol. 12:1075-1082
AL	Blacklow, S.C., et al. (1995) "A Trimeric Subdomain of the Simian Immunodeficiency Virus Envelope Glycoprotein," <i>Biochemistry</i> , Vol. 34(46):14955-14962
AM	Lu, M., et al. (1997) "A Trimeric Structural Subdomain of the HIV-1 Transmembrane Glycoprotein," <i>Journal of Biomolecular Structure & Dynamics</i> , Vol. 15(3):465-471
AN	Chen, C.H., et al. (1995) "A Molecular Clasp in the Human Immunodeficiency Virus (HIV) Type 1 TM Protein Determines the Anti-HIV Activity of gp41 Derivatives: Implication for Viral Fusion," <i>Journal of Virology</i> , 3771-3777
AO	Tan, K., et al. (1997) "Atomic Structure of a thermostable subdomain of HIV-1 gp41," <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 94:12303-12308

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use several sheets if necessary) (PTO-1449)	ATTY. DOCKET NO. 19603/2921 (CRF-D-2484a)	SERIAL NO. To Be Assigned
	APPLICANT Min Lu and Hong Ji	
	FILING DATE June 8, 2001	GROUP ART UNIT Unknown



U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPRO- PRIATE
	BA						
	BB						
	BC						
	BD						
	BE						
	BF						
	BG						

FOREIGN PATENT DOCUMENTS

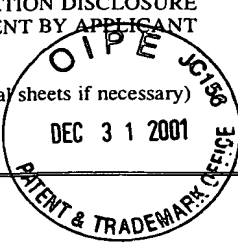
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANS- LATION IF APPRO- PRIATE
	BH						
	BI						
	BJ						

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

BK		Salzwedel, K., et al. (1999) "A Conserved Tryptophan-Rich Motif in the Membrane-Proximal Region of the Human Immunodeficiency Virus Type 1 gp41 Ectodomain Is Important for Env-Mediated Fusion and Virus Infectivity," <i>Journal of Virology</i> , Vol. 73(3):2469-2480
BL		Jiang, et al. (1993) "HIV-1 inhibition by a peptide" and "Nested fullerene-like structures," <i>Scientific Correspondence</i> , Vol. 365:113
BM		Malashkevich, V.N., et al. (1998) "Crystal structure of the simian immunodeficiency virus (SIV) gp41 core: Conserved helical interactions underlie the broad inhibitory activity of gp41 peptides," <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 95:9134-9139
BN		Wild, C.T., et al. (1994) "Peptides corresponding to a predictive -helical domain of human immunodeficiency virus type 1 gp41 are potent inhibitors of virus infection," <i>Proc. Natl. Acad. Sci USA</i> , Vol. 91:9770-9774
BO		Gallagher, W.R., et al. (1989) "A General Model for the Transmembrane Proteins of HIV and Other Retroviruses," <i>AIDS Research and Human Retroviruses</i> , Vol. 5(4):431-440

EXAMINER	DATE CONSIDERED
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use several sheets if necessary) (PTO-1449)	ATTY. DOCKET NO. 19603/2921 (CRF-D-2484a)	SERIAL NO. To Be Assigned
	APPLICANT Min Lu and Hong Ji	
	FILING DATE June 8, 2001	GROUP ART UNIT Unknown



U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPRO- PRIATE
	CA						
	CB						
	CC						
	CD						
	CE						
	CF						
	CG						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANS- LATION IF APPRO- PRIATE
	CH						
	CI						
	CJ						

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

CK		Chambers, P., et al. (1990) "Heptad repeat sequences are located adjacent to hydrophobic regions in several types of virus fusion glycoproteins," <i>Journal of General Virology</i> , 71:3075-3080
CL		Wild, C., et al. (1995) "The Inhibitory Activity of an HIV Type 1 Peptide Correlates with Its Ability to Interact with a Leucine Zipper Structure," <i>AIDS Research and Human Retroviruses</i> , Volume 11(3):323-325
CM		Delwart, E.L., et al. (1990) "Retroviral Envelope Glycoproteins Contain a 'Leucine Zipper'-like Repeat," <i>AIDS Research and Human Retroviruses</i> , Vol. 6(6):703-706
CN		Neurath, A.R., et al. (1995) "Two Partially Overlapping Antiviral Peptides from the External Portion of HIV Type 1 Glycoprotein 41, Adjoining the Transmembrane Region, Affect the Glycoprotein 41 Fusion Domain," <i>AIDS Research and Human Retroviruses</i> , Vol. 11(2):189-190
CO		Chan, D.C., et al. (1997) "Core Structure of gp41 from the HIV Envelope Glycoprotein," <i>Cell</i> , Vol. 89:263-273

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use several sheets if necessary) (PTO-1449)	ATTY. DOCKET NO. 19603/2921 (CRF-D-2484a)	SERIAL NO. To Be Assigned
	APPLICANT Min Lu and Hong Ji	
	FILING DATE June 8, 2001	GROUP ART UNIT Unknown



U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPRO- PRIATE
	DA						
	DB						
	DC						
	DD						
	DE						
	DF						
	DG						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANS- LATION IF APPRO- PRIATE
	DH						
	DI						
	DJ						

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

	DK		Caffrey, et al. (1998) "Three-dimensional solution structure of the 44 kDa ectodomain of SIV gp41," <i>The EMBO Journal</i> , Vol. 17(16):4572-4584
	DL		Yang, X., et al. (2000) "Modifications That Stabilize Human Immunodeficiency Virus Envelope Glycoprotein Trimers in Solution," <i>Journal of Virology</i> , Vol. 74(10):4746-4754
	DM		Yang, Z.N., et al. (1999) "The Crystal Structure of the SIV gp41 Ectodomain at 1.47 A Resolution," <i>Journal of Structural Biology</i> , 126:131-144
	DN		Weissenhorn, W., et al. (1997) "Atomic structure of the ectodomain from HIV-1 gp41," <i>Nature</i> , Vol. 387(22):426-430
	DO		
EXAMINER			DATE CONSIDERED
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			